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ABSTRACT

This report examines the cost effectiveness of the Marchus School's 599/1261 Project, one of two programs funded by the State of California, that established an inclusive education program for 17 students with serious emotional disturbances at risk for nonpublic school placements. The project teaches academic, social, and conflict resolution skills by using a social cognitive approach that fosters healthy emotional development and academic achievement. The active support and participation of each student's family is also encouraged. "Wrap around services" provided by mental health and other agencies support the classroom staff and include services such as a one-to-one assistant, a mobile therapist who provides therapy in the home and school, and a behavioral intervention specialist. As a result of the project, from August 1994 to August 1996 more than $333,000 was saved due to the avoidance of more restrictive and costly educational settings. Four of the students were moved from residential/group home settings to more normal living situations with family members, an additional savings of $70,000. The total savings as a result of the project was over $700,000 in two years. The report includes case studies for three of the students and recommendations for successful replication of the model. (CR)

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Cost Effectiveness of Maintaining Students with Serious Emotional Disorders In the Public School System

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Abstract

Marchus School's 599/1261 Project is one of two programs funded by the State of California to establish an inclusive education program within a public school setting for students with serious emotional disturbances (SED) at risk for nonpublic school placements. This article suggests a programmatic design as well as an analysis of the cost effectiveness of this successful program. Results indicate that costs are not only avoided but saved. Recommendations and directions for further study are addressed.

Introduction

Since 1991, the cost of educating students with severe emotional disturbances in nonpublic school sites has double in the state of California. The lack of public school based programs to serve students with serious emotional problems resulted in a dramatic increase in state referrals to nonpublic school sites. From 1991 to 1996, the number of students served in these restrictive settings increased five fold. Currently, over 10,000 California students are being educated in restrictive, nonpublic schools at a cost to the state of over 200 million dollars per year (California Child Count Data, 1997). As a result of these skyrocketing costs, an action (AB 599; February 22, 1993; reauthorized as AB 1261; June 28, 1997) of the California Legislature was enacted. It encouraged public school districts to establish cost effective programs for individuals with serious emotional disturbances who otherwise would be and currently are placed in nonpublic schools. In response to this request, the Contra Costa County Office of Education applied to the State Department of Education for support. With the acceptance of Contra Costa County's application, the AB 599/1261 Program at the Floyd I. Marchus School was established to provide intervention and services for students with serious emotional disturbances. The targeted students are those who are imminently at risk of being placed in a nonpublic school or other more restrictive setting. This Project is designed to provide quality programs and services at a cost to the public that is no greater than that which is incurred in identified nonpublic settings. Marchus School, located in a suburban area east of San Francisco, is one of two sites in the state to establish such an inclusive education program.

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The Marchus School

In Contra Costa County, the Marchus School is an integral component of a far ranging continuum of services. This includes the general education (least restrictive) classrooms which are operated by one of twenty-one local school districts to a special site, Marchus School, operated by the Contra Costa County Office of Education Special Education Local Planning Agency (SELPA), a service consortium for the aforementioned local school districts, and nonpublic schools (most restrictive) with a residential component. The following diagram represents the services within Contra Costa County and the AB 599/1261 classroom at Marchus School's relationship to said services.

Continuum of Service Levels

LEVEL OF SERVICE	SERVICE LOCATION
1. General Education Classroom	local school districts
2. Special Education Services at Local School	local school districts
3. Special Education Services at Local School	SELPA's satellite programs
4. Special Education Classrooms, Special Site	SELPA's Marchus Center
5. AB599 Classroom at Special Site	SELPA's Marchus Center
6. NonPublic Day School	private day facilities
7. NonPublic School w/Residential Services	private residential facilities

The Marchus School's Counseling and Education Program (C.E.P.) provides special education classes for elementary, intermediate, and senior high school students who are identified as SED and exhibit behavior problems. The C.E.P. is designed to provide integrated counseling and education programs which foster emotional development and academic achievement. The ultimate goal is to integrate students into less restrictive environments and to transition students to the community as responsible individuals. The program also strives to assist students in developing the appropriate social skills and decision making abilities required to better meet life's difficulties.

Over 150 students identified as SED are currently served by the Counseling and Education Program. The program is based at the Marchus School and is extended to campuses throughout Contra Costa County through satellite classes on general education school sites. Students are recommended for transition and placement in satellite classes when their behavior is appropriate for district school campuses.

AB 599/1261 Classroom at Marchus School

The Project classroom functions using a model based on Albert Bandura's social cognitive approach in explaining human behavior. It is a model which overlaps behavioral and cognitive theories. A person's behavior, in this model, is a result of three coexisting factors. These are the environment, personal/cognitive factors, and the actual behavior. These three factors do not necessarily contribute equally to the outcome behavior, nor are they consistent as determinates of a person's behavior. Rather, the interaction of theses factors depends upon the circumstances. For most situations, the social and physical environment, personal and cognitive feelings, and the individual's behavior each play a role in human behavior. The significant element in this model is that all factors must be considered in addressing a person's needs; especially a young person with emotional problems (Bandura, 1977, 1986; Kauffman, 1997).

The Project teaches academic, social and conflict resolution skills using the social cognitive approach that foster healthy emotional development and academic achievement.. The Project's Counseling and Education Program uses a variety of behavior management techniques in order to facilitate student growth. The Program aids each student in meeting their social, emotional, and behavioral goals, as well as the academic goals and objectives, that are prescribed in the Individual Education Program (IEP). Instruction in the program is highly individualized, with whole class instruction and grouping whenever possible. The program encourages the active support and participation of each student's family and/or care givers. The program staff communicates frequently with families and encourages them to fully utilize community support services. Of special note is the provision of "wrap around services" that are provided by the Contra Costa County Department of Mental Health and other agencies. These "wraparound services" provide support to the classroom staff as well as the family and include services such as a 1 to 1 assistant, a "mobile therapist" who provides therapy in the home and school setting, and behavioral intervention specialist. Once the student is successful and stable in the Project's classroom, the staff assists the student as he/she transitions toward a less restrictive educational environment.

The Project staff consists of one full-time credentialed teacher, three full-time instructional assistants, one 75% time Mental Health Specialist, one 50% time School Psychologist, and a Program Evaluator. In addition, students are offered art therapy services through a contract with the local Contra Costa County Mental Health Association. There are a maximum of ten students enrolled in the program at any given time.

To date, 17 students have been served by the Project. In order to give the reader a better appreciation of these students (when they entered the program) and their instructional and behavioral environments, one may compare the Marchus students (certainly with their own special needs) with those students served through 599/1261.

Comparison of Instructional and Behavioral Environments

Factors to be considered	Marchus (General Program)	599
students living with one parent	44%	60%
students living with other-than-parent	16%	40%
students who have been involved with juvenile justice system	11%	100%
students w/history of assaultive behaviors	32%	100%
students w/drug and alcohol problems	30%	60%
students w/history of hospitalization/ residential treatment	26%	40%
students w/histories of sexual/physical and emotional abuse	33%	40%
student taking medication	38%	80%
students mainstreaming/integrating	38%	0%

Evaluation Design and Intent

Ten students were identified from the nonpublic school (NPS) environment and served as the Project's control group. The funding base was tracked during the first year of the Project and programmed by an Educational Diagnostic Specialist who is employed by the County Office of Education and works as a member of the Youth Interagency Contact Team (YIACT). Between both programs, the Project identified and programmed for 25 students during academic year 1994-1995. Of those 10 students in the control group, five have returned to more restrictive settings (50% success rate). Of those 17 served by the 599/1261 classroom, four have gone back to more restrictive settings while the remainder are currently being maintained in the existing program or went to less restrictive settings (73% success rate).

Given that this Project is mandated by the legislature, the question of accountability is paramount. To validate the program, the project staff sought to determine Project effectiveness. One understandable and hence powerful method to document success (students maintaining and/or progressing toward a less restrictive setting) is to compare costs of specific programs. This analysis is undertaken with the understanding that programs that are less restrictive tend to be less expensive than those served in more restrictive environments. The examination of specific programs for individual students leads to a determination of the cost implications of programmatic decisions. These decisions enable Project staff to make formative and summative evaluative decisions.

As mandated by the legislature, the Project is to evaluate individual student and class progress. Marchus staff has set out to develop a two pronged evaluation model; the first a multi-dimensional factor analysis of staff/student performance and program delivery that can be evaluated using a multiple regression model and the second, a discussion of the cost

savings and/or cost avoidance to school agencies as a result of student involvement in the Project. The first evaluation design has been described in detail in "Maintaining Students with Serious Emotional Disturbances in the Public Schools: Factors that Explain Success" (MacMillan and Grimes, 1996).

To determine programmatic success the Project has set out to examine specific costs of services. The analysis seeks to identify the effect of Project services in the following terms:

- Cost Avoidance: occurs when a more restrictive and costly placement is avoided due to appropriate placement in the 599 Project classroom.
- Cost Savings: occur when the student, as a result of 599 classroom interventions, is able to transition to a less costly, less restrictive, educational placement.

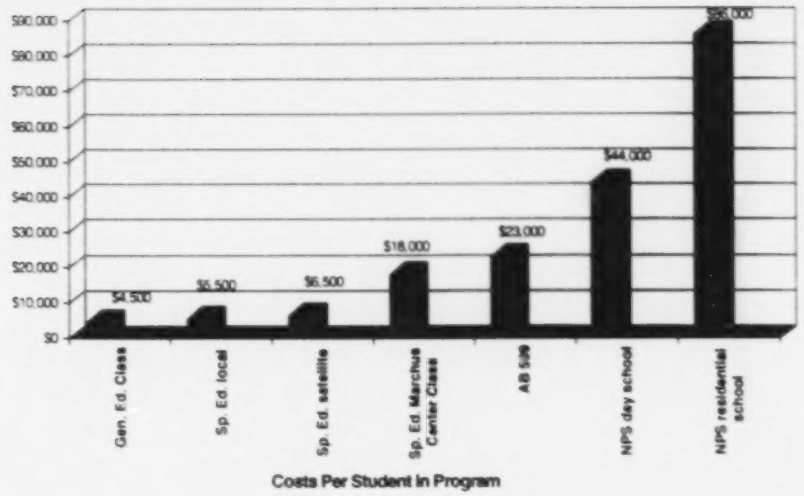
To begin such an analysis, one must first determine the costs of specific social, behavioral, residential, and instructional services. Currently, the Contra Costa County Special Education Local Planning Agency (SELPA) annual average cost for 599/1261 classroom placements at Marchus School is $23,000 per student for an extended school year program. Project funding is sufficient to provide basic instructional services as well as additional services (and staff support) to the AB 599/1261 classroom. The basis of the following analysis is the cost of providing service to this population. The costs (and referring to the aforementioned continuum) for all programs are as follows:

Costs of Services Within the Continuum

LEVEL OF SERVICE	PerPupil Program Costs
1. General Education Classroom	$ 4,500
2. Special Education Services at Local School	$ 5,500
3. Special Education Services at Local Satellite Site	$ 6,500
4. Special Education Classrooms at Marchus Center	$18,000*
5. AB599 Classroom at Marchus Center	$23,000*
6. Non Public Day School (day treatment)	$44,000*
7. Non Public School w/Residential Component	$86,000*

* Non Public School rates are based on average school and mental health rates combined. Figures reflect an extended year program.

Costs of Services Within the Continuum



As a result of 599/1261 intervention from August 1994 to August 1996, over $333,000 has been avoided. We arrive at that figure with the belief that without this program, these students would have been placed in more restrictive and costly educational settings.

Seven students have been placed in less restrictive academic environments. Two students have been placed in the Marchus program, three to district special education special day classes, one to a district special education resource program, and one, totally mainstreamed. These students, served in less restrictive and less costly programs have saved local, state, and federal budgets over $311,180.

Another benefit, and in some ways one that may be most important, is that as academics and behaviors improve, social skills and social appropriate behaviors may also improve. Four students have moved to more normal living situations moving from residential/group home settings to living with family members. We estimate an additional savings of $70,000 because of this progress. Not only has this saved governmental agencies money, there are notable human consequences for all involved, the students as well as their families.

These savings are a direct result of the effectiveness of the 599/1261 Project. Students have been able to improve their classroom and social behaviors to the extent that they have been able to move to less restrictive and less expensive classes. The total savings (and costs avoided) as a result of the Project has been over $700,000 in two years.

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Three Case Studies

These studies are presented to illustrate the students, the environments, the program, and the progress to date.

Steve

Steve, a large 16 year old boy, who upon entering the 599/1261 class, lived with his mother. His family had a history of mental illness. There was evidence of physical abuse and neglect. There were reports of Steve being deprived of food. Child Protective Services had been involved with Steve and his family repeatedly over the years. Steve was tested in 1993 using the WISC and had a Full Scale score reported of 82.

Upon admittance to the 599/1261 Project classroom in August 1994, Steve displayed behaviors such as slow speech, a schizoid affect, and extremely poor hygiene. He was heavily medicated taking lithium, Haldol, and imipramine. He presented himself as mentally retarded with slow speech and an awkward body posture.

In November 1994, Steve was removed from his family and placed in a group home. During the time he was enrolled in the 599/1261 classroom, it was determined that he was inappropriately and over medicated. He was taken off all medication. He was recognized within the classroom and school as an exceptional artist and musician. His hygiene improved. He was retested in 1996, his WISC Full Scale score was reported as 118. He was discharged from the 599/1261 program in June 1995.

In June 1995 he left the group home to move to San Diego to live with his father. Leaving the group home has saved social service agencies over $36,000. In August 1995 he enrolled in a public high school and received resource room level special education services only, with a plan to discontinue special education services once the transition to a new school is completed.

- Without 599 services, Steve may have been placed in a nonpublic school in August 1994-June 1995 at a cost of $20,000.
- It is suggested that without 559/1261 interventions (and improved social and emotional behaviors), Steve may not have been able to move to San Diego to reunify with his father.
- Given that Steve was able to move into a Resource classroom, there was a annual cost savings of over $39,000.

Finally, without 599/1261 services, Steve may have remained in Contra Costa County, possibly moving to a residential facility. If in fact he did move to San Diego without participating in the 599/1261 Project, it is very possible that Steve may have required significant and very restrictive services upon moving to San Diego.

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Matt S.

Matt was formerly enrolled in the Marchus School and subsequently moved to a less restrictive district special education special day class in October of 1994. Due to lack of academic progress and the display of inappropriate behaviors, Matt returned to Marchus School in January 1995. In September 1995 he was enrolled in the 599/1261 classroom located within the Marchus School. In November of 1995, Matt was hospitalized as his mental illness became more severe. He was discharged from the hospital with a prescription for 250 mg. of Depakote to be taken twice daily to control his outbursts of anger. In late January, 1996, he came back to the 599/1261 classroom. He has maintained reasonably well to date. Unfortunately and noteworthy, as Matt becomes older and can no longer be served by 599/1261 because of his grade placement; Matt is exiting the 599/1261 Program this summer and will enroll at LaCheim Day Treatment, a nonpublic school, in August 1996.

- Without 599/1261 intervention, Matt may have gone directly to a nonpublic school program in January 1995 and then again in January 1996. Those seven months represent a cost avoidance of over $14,000.
- If a program similar to 599/1261 existed for older students, Matt may have remained in such a program at a cost savings of $21,000 annually.

Dave M.

Dave, best described as a moody, 12 year old boy, came to the 599/1261 classroom in February 1995 from the Marchus general program It was reported that he suffered from a "chronic low grade depression". He displayed paranoid like behaviors, often accusing people of talking about him. At times he was talkative with a tendency of embellishing the truth. He also enjoyed cooking. He was reported to have a history of stealing. His family disliked the "system" and was very defensive towards professional, institutional interventions. He was not on any medication.

With interventions that the 599 staff described as "serious", strict limits were set for Dave. As Dave achieved success, the family became more supportive of Dave and the 599/1261 program. During this time, the mother left her abusive boy friend. The grandfather, an alcoholic was incarcerated. When he came home from prison, he was sober; he has remained sober. The grandmother had been in ill health, but as a result of surgery, her health and ability to function improved. The home environment became much more stable. Dave became increasingly more motivated at school through his continued success and stabilized family situation.

In January 1996, Dave left the 599/1261 classroom and enrolled in a learning handicapped

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(mild) special day class at a fully integrated public school.

- **Without 599/1261 intervention, Dave would have been place in a nonpublic school at $4,000 per month versus $2,000 per month at 599/126; over $20,000 in costs were avoided.**
- **Ten months after entering the 599/1261 classroom, Dave was placed in January 1996, in a less restrictive district special day class at a annual savings of $35,500.**

As previously mentioned, the students in the 599/1261 classroom exhibit extremely difficult behaviors. Unfortunately, in spite of 599/1261 interventions, five students have required more restrictive settings than provided within the design of the Project. One student has gone to a residential program but is now on home study, three students are currently in residential placements, and one student has been hospitalized.

Currently, eight Project students are maintaining and hopefully progressing toward less restrictive and more enhancing settings. By avoiding placement in more costly nonpublic programs, the AB 599/1261 Project is saving the taxpayer over $21,000 per student each year.

Programmatic Intent:

It is the intent of this study to determine and evaluate the costs in providing academic, behavioral and emotional treatment and appropriate living environments for students with severe emotional disturbances. As a result of the aforementioned analysis, investigators are able to determine the effectiveness of the AB 599/1261 Project (and may formulate specific programmatic recommendations) as evident by the substantial and significant avoidance of cost and resultant cost savings. The following recommendations are important in creating and maintaining a program whereby successful interventions can take place.

Recommendations and Summary

In conclusion, we believe that this work, and the study and research of this work, will be of great interest to educators of students with serious emotional disturbances. Albeit efforts are still in progress, a number of recommendations for successful replication of this model are suggested. They are:

1. legislative support to establish the Project.
2. adequate funding to support the commitment (creation of a desirable, staff-intensive instructional environment).
3. leadership and commitment the Project's Advisory Committee, an exceptional group that represents local school districts, child welfare agencies, local nonpublic schools and the courts.
4. commitment by Marchus school site staff to include and integrate the 599/1261

classroom into appropriate school site and local school district activities.

5. overall vertical commitment, that is commitment from district administration, school site administration, school site staff, Project staff, parents (care givers), students, and support personnel as well as valuable input and consultation from the Project's Advisory Committee.
6. conceptualization, prior to the establishment of the 599/1261 Project, of a delivery system model that will provide the framework for programmatic success.
7. establishment of a working, cross disciplinary team of teachers and assistants, social workers, mental health professionals, psychologists and evaluators.
8. inclusion (and "buy-in") of family/care giver(s) in the on-going instructional and behavioral treatment plan.
9. an acknowledgment of the importance of a stable family/care giver environment.
10. an extensive inservice education program which provides not only training but also support to all personnel.
11. an operational continuum of service that provides viable placement options for students.

It is believed that all (but certainly not limited to just those eleven) of the aforementioned are essential to establish the platform for Project success.

It is clear that the AB 599/1261 Project classroom operated by the Contra Costa County Office of Education has been extremely successful in both human and monetary terms. We invite legislators, governmental officials, administrators and teachers to review our efforts. Upon review, we are confident that one will acquire a clearer understanding of the factors necessary to establish, implement, and evaluate a quality community-based public school program that is cost efficient.

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Acknowledgments:

Dr. Grimes currently serves as Partnership Development Coordinator, Student Services Division, for the Contra Costa County Office of Education. Dr. Grimes established and implemented the AB 599/1261 Project classroom at Marchus School. Dr. MacMillan serves the Project as "evaluator" and primary researcher. He is on the faculty at The Pennsylvania State University. Mr. Bill Filler is the Project's classroom teacher, Ms. Christie Norton serves the Project as school psychologist and Ms. Teresa Gibson is the social worker assigned to the Project. Ms. Nancy Cooper is graduate assistant at the Pennsylvania State University.